

[B8306] Capital Markets and Investments

1 General Information

Section	001	002
Class time	MW 4:10PM-5:40PM Fri Sept 8 4:10PM-5:40PM	MW 6:00PM-7:30PM Fri Sept 8 6:00PM-7:30PM
Teaching Assistant	TBD	TBD
Location	Kravis 490	
Weekly reviews [‡]	Fridays 5:15-6:45pm	
Math review	TBD	
Midterm review	TBD	
Final review	TBD	

[‡]All review sessions are optional.

Instructor: Xuelin Li, Assistant Professor of Finance, Email: xl3334@columbia.edu. Office: 1181. Office hour: By appointment.

Course Description: This course has three goals:

1. To introduce the principles of investing from an applied perspective. Leading applications include personal and professional portfolio management, risk management, and security valuation.
2. To introduce the following concepts: arbitrage, the term structure of interest rates, duration and immunization, portfolio choice and diversification, equilibrium asset pricing (the CAPM), systematic and idiosyncratic risk, performance evaluation, market efficiency, factor investing.
3. To provide sufficient background knowledge for students seeking an overview of capital markets and an introduction to advanced finance courses.

Course Description: Textbook. Recommended textbooks can be purchased at the Columbia University Bookstore and are on reserve in Watson library:

- *Investments* by Bodie, Kane, and Marcus (hereafter BKM), 9th, 10th or 11th edition
- *Investments, Student Solutions Manual* by Bruce Swenson, 9th, 10th or 11th edition.

Notes will be distributed in each class, and will be available on Canvas. Relevant articles from industry, academia, and the popular press will be provided throughout the course.

2 Course Structure

The course grade will be based on cases, problem sets, class participation, an in-class midterm and an in-class final exam. The components of the grade are as follows:

Cases	15%
Problem sets	25%
Class participation and weekly quizzes	15%
Midterm exam	20%
Final exam	25%

Groups: Cases and problem sets should be done in **groups of 3 members** (MBA assignment type A). Students are responsible for organizing these groups and should add all group members to one of the Assignment Groups on Canvas. While you are encouraged to talk to other groups when working on cases and problem sets, the answers you hand in should be your own. Please do not hand in an assignment that is identical to that of another group. You should not copy answers from prior years' case and problem set solutions.

Cases: There will be four case assignments, though the first is intended as a review and will not be graded. Each case will be distributed at least one class in advance and due by 11:59pm on the due date. Cases and solutions will be available on Canvas. Because case solutions are discussed in class, late cases will not be accepted.

Problem sets: There will be six problem sets, though the first is intended as a review and will not be graded. Each problem set will be distributed one week in advance and will be due by 11:59pm on the due date. Problem sets and solutions will be available on Canvas.

Grading of cases and problem sets: Cases and problem sets will be graded on a 1–10 scale.

Weekly Canvas quizzes: Each week, students must take a short quiz on Canvas between Wednesday at 8pm and the following Monday at 4pm. Each quiz consists three or four review questions based on the week's lectures and readings. Quizzes must be taken individually. Any books, references, computing or calculating equipment may be used. Quiz scores count toward the participation component of your grade. Solutions will be posted soon after quizzes are due. Just taking a quiz (and even scoring a zero) will still get you over half of the credit for the quiz. Not taking a quiz gets you zero credit.

Exams: Any books, references, computing or calculating equipment may be used.

- The midterm exam will be electronic and can be taken during the midterm exam week.
- The final exam will be electronic and can be taken during the final exam week.

The exact timing of the midterm and final will be announced later. You can contact me with any exam scheduling questions.

3 Review sessions and office hours

Optional review sessions, led by the course TAs, will be held almost every week (see calendar on Canvas) on Fridays 5:15-6:45pm. Review sessions will cover no new material, and will emphasize

working through problems and answering student questions. In addition to review sessions, there will be regular office hours held by the TAs. You can also schedule a time to see me.

The first review session (TBD) will be an overview of math and statistics concepts that will be useful for the course. If you're feeling a little uneasy about your math skills, it's well worth attending.

I will hold two special (optional) review sessions, one each before the midterm and final exam. The times of these will be announced in class.

4 Tentative Outline

Figure 1: *** Course and assignment schedule. *SUBJECT TO CHANGE.* ***

2023	#	Section	Topic	BKM	Assign	Due Date
09/08/23 Fri	1	Intro	Overview; Discounting, Arbitrage, & Shorting	1, 2	Case 0	09/15/23 Fri
09/11/23 Mon	2	Intro	Shorting, Leverage, and No-arbitrage	2, 3	PS 0	09/25/23 Mon
09/13/23 Wed	3	FI1	The Investments Ecosystem	14		
09/18/23 Mon	4	FI2	Pricing STRIPS and Coupon Bonds	15	PS 1	10/01/23 Sun
09/20/23 Wed	5	FI3	Term Structure of Interest Rates	16		
09/25/23 Mon	6	FI4	Interest Rate Risk (Duration)	16	Case 1	10/09/23 Mon
09/27/23 Wed	7	FI5	Risk Management (Immunization)	16	PS 2	10/11/23 Wed
10/01/23 Sun	8	FI6	The Fed, Monetary Policy, and Rates	5, 18		
10/03/23 Tue	9	EQ1	Corporate Debt Valuation	6	PS 3	10/13/23 Fri
10/09/23 Mon	10	EQ2	DDMs and the Gordon Growth Model	7		
10/11/23 Wed	11	EQ3	Diversification	8, 9		
Midterm Exam -- takehome during midterms week						
10/23/23 Mon	12	EQ4	The Efficient Frontier	8, 9		
10/25/23 Wed	13	EQ5	The CAPM – Theory	9, 11		
10/30/23 Mon	14	EQ6	The CAPM – Applications	10, 13	PS 4	11/13/23 Mon
11/01/23 Wed	15	EQ7	Equity Strategies	4, 24		
11/06/23 Mon	16	EQ8	Factor Models	12	Case 3	11/20/23 Mon
11/08/23 Wed	17	MS1	Managed Investment Vehicles	26, 27		
11/13/23 Mon	18	MS2	Taxes and Tax Strategies	12		
11/15/23 Wed	19	MS3	Fund Performance Evaluation	20	PS 5	12/04/23 Mon
11/20/23 Mon	20		Speaker Brief & Debrief			
11/27/23 Mon	21		Speaker Brief & Debrief			
11/29/23 Wed	22		Speaker Brief & Debrief			
12/04/23 Mon	23		Speaker Brief & Debrief			
12/06/23 Wed	24		Course Summary			
Final Exam -- takehome during finals week						

- Key: FI=Fixed Income, EQ=Equities, MS=Market Structure
- BKM refers to the textbook by Bodie, Kane and Marcus. You should at least skim the relevant chapters prior to the lecture